UNITED STATES PATENT AND TRADEMARK OFFICE

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10/585,465	12/18/2006	Masami Yamamoto	SCET 22.664 (100809-00339	5899

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KATTEN MUCHIN ROSENMAN LLP
575 MADISON AVENUE
NEW YORK, NY 10022-2585

EXAMINER
BOLOTIN, DMITRIY

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-14* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-14* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>05 July 2006</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some * c) ☐ None of:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date <u>12/18/2006</u>.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

It would be of great assistance to the Office if all incoming papers pertaining to a

filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1.   **Claims 1, 3, 6 – 8** are rejected under 35 U.S.C. 102(b) as being anticipated by

Ohba (US 2002/0097247).

As to **claim 1**, Ohba discloses an information processing system, comprising:

means for producing a computer image (image processor 2 of fig. 2, [0068]) that

prompts a player to virtually touch a plurality of touch points (a menu comprising layers

of pull down menus shown in fig. 7, [0070]); means for accepting input of a video image

of the player (image input device 101 of fig. 3) picked up by image pickup means (video

camera 1 of fig. 1); display control means for superimposing the video image and the

computer image on one another and causing a display device to display a

superimposed image (superimposing image generator 106 of fig. 3); means for

analyzing the video image during display of the computer image (difference value

detector 107 of fig. 3) and detecting a virtual touch to any of the plurality of touch points

(object controller 105 determines touch [0075]); and means for executing predetermined

processing (CPU 10 of fig. 2, [0070]) when the detecting means detects the virtual

touches that are made to a predetermined number of touch points in a predetermined

order (when appropriate process is selected form a pull-down menu, [0070]).

As to **claim 3** (dependent on 1), Ohba discloses the information processing

system wherein: the image producing means sequentially produces computer images

(menu items shown in fig. 7, [0070]) including navigation information indicating one

touch point to be touched next (such as one SELECT point or PROCESS point of fig. 7);

and the means for executing predetermined processing executes the predetermined

processing (CPU 10 executes determined process, [0071]) when the detecting means

detects that the virtual touches have been made for the respective computer images

including the navigation information that is sequentially produced [0070 – 0071].

As to **claim 6**, Ohba discloses an entertainment system, comprising: means for

producing a computer image including an image for specifying a plurality of areas

(image processor 2 of fig. 2); means for accepting input of a video image (image input

device 101 of fig. 3) picked up by image pickup means (camera 1 of fig. 1); display

control means for superimposing the video image and the computer image on one

another and causing a display device to display a superimposed image (superimposing

image generator 106 of fig. 3); and means for analyzing the video image by referring to

the computer image (difference value detector 107 of fig. 3), wherein: the image

producing means selects one area of the plurality of areas in a predetermined order

(menu area of fig. 7), and sequentially produces a plurality of images (SELECT1,

SELECT2 and SELECT3 of fig. 7) each of which prompts the input [0070] and is

obtained by displaying the selected area in a manner different from others (one of the

SELECT images is highlighted when selected, [0070]); the analyzing means analyzes

the video image when each of the plurality of images, that prompts the input, is

displayed, and detects that an area of the video image, corresponding to the selected

area displayed in the manner different from others, includes a predetermined image (the

object controller determines the color of menu image according to the difference value,

[0070 – 0071 and 0075 – 0076]); and a predetermined function is executed when

production of the image that prompts the input, and the detection that the corresponding

area includes the predetermined image, are performed a predetermined number of

times (as shown in fig. 7, the user has to go through nested menu by pressing at lest

three touch point in order for a process to execute, [0070 – 0071]).

As to **claim 7**, Ohba discloses an information processing system input accepting

method, comprising: producing a computer image that prompts a player to virtually

touch a plurality of touch points (producing nested menu shown in fig. 7); accepting

input of a video image of the player (using image input device 101 of fig. 3) picked up by

image pickup means (camera 1 of fig. 1); analyzing the video image (using difference

value detector 107 of fig. 3) while superimposing the video image and the computer

image on one another (using superimposing image generator 106 of fig. 3) and causing

a display device to display a superimposed image (using display controller 108 of fig. 3),

and sequentially detecting virtual touches to any of the plurality of touch points

(sequentially touching nested menu shown in fig. 7, [0070]); and accepting the virtual

touches as predetermined input when a predetermined number of touch points are

touched in a predetermined order by the virtual touches (as shown in fig. 7, the user has

to go through nested menu by pressing at lest three touch point in order for a process to

execute, [0070 – 0071]).

As to **claim 8**, Ohba discloses a recording medium (28 of fig. 2) on which a

computer program for accepting input is recorded, the computer program causing a

computer to execute processing of: producing a computer image that prompts a player

to virtually touch a plurality of touch points Ohba; accepting an input of a video image of

the player (using image input device 101 of fig. 3) picked up by image pickup means

(camera 1 of fig. 1); analyzing the video image (using difference value detector 107 of

fig. 3) while superimposing the video image and the computer image on one another

(using superimposing image generator 106 of fig. 3) and causing a display device to

display a superimposed image (using display controller 108 of fig. 3), and sequentially

detecting virtual touches to any of the plurality of touch points (sequentially touching

nested menu shown in fig. 7, [0070]); and accepting the virtual touches as

predetermined input when a predetermined number of touch points are touched in a

predetermined order by the virtual touches (as shown in fig. 7, the user has to go

through nested menu by pressing at lest three touch point in order for a process to

execute, [0070 – 0071]).

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

4.   **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohba in

view of Lee et al. (US 6,160,899).

As to **claim 2** (dependent on 1), Ohba discloses the information processing system, wherein the detecting means detects the virtual touch when an object within the video image overlaps any one of the plurality of touch points within the computer image [0070 – 0071].

Ohba fails to disclose that virtual touch is detected when an object having a specific color and worn by the player.

In the same field of endeavor, Lee discloses detecting virtual touch when an object is worn by the player (ring of fig. 4A, col. 4, and lines 3 – 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate an object worn by the player in to the system of Ohba, so as to avoid erroneous recognition (Lee, col. 3, lines 63 – 67)

Ohba in vie of Lee do not disclose the object worn by the player having a specific color. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to associate a specific color with the ring object of Ohba in view of Lee, since Lee discloses that the system can also detect the color, such as flesh color (Lee, col. 3, lines 23 – 33).

5.   **Claim 9 – 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohba in view of Nakamura et al. (US 7,331,856).

As to **claim 4** (dependent on 1), Ohba discloses the information processing system, wherein: the image producing means (image processor 2 of fig. 2) sequentially produces computer images (nested menu of fig. 7); and the means for executing predetermined processing (CPU 10 of fig. 2) executes the predetermined processing when the detecting means detects that the virtual touches have been made [0070 – 0071] for the respective computer images including the navigation information that is sequentially produced (nested menu of fig. 7).

Ohba fails to disclose an image each indicating two touch points to be touched next and detecting virtual touches have been made simultaneously on the two touch points.

In the same field of endeavor, Nakamura discloses an image each indicating two touch points to be touched next (when a plurality of players present) and detecting virtual touches have been made simultaneously on the two touch points (col. 25, line 55 – col. 26, line 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Ohba to include features disclosed by Nakamura, so as to provide an interactive experience to a plurality of uses of the system.

As to **claim 5** (dependent on 1), Ohba discloses the information processing system, wherein: the image producing means (image processor 2 of fig. 2) produces the computer image including navigation information (nested menu of fig. 7); and the means

for executing predetermined processing (CPU 10 of fig. 2) executes the predetermined

processing when the detecting means detects that the virtual touches have been made

according to the navigation [0070 – 0071].

Ohba fails to disclose navigation information indicating an order of touches to be

made to the touch points

In the same field of endeavor, Nakamura discloses navigation information

indicating an order of touches to be made to the touch points (col. 30, lines 50 – 56).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the device of Ohba to include features disclosed by

Nakamura, so as to provide an interactive experience to a user of the system.

As to **claim 9**, Ohba discloses an information processing system, comprising;

means for producing a computer image that prompts a player to virtually touch a

plurality of touch points (image processor 2 of fig. 2); means for accepting an input of a

video image of the player (image input device 101 of fig. 3) picked up by image pickup

means (camera 1 of fig. 1); display control means for superimposing the video image

and the computer image on one another and causing a display device to display a

superimposed image (superimposing image generator 106 of fig. 3); means for

analyzing the video image during display of the computer image and detecting virtual

touches to any of the plurality of touch points (difference value detector 107 of fig. 3);

and the detecting means detects the virtual touches that are made sequentially to a

predetermined number of touch points in a predetermined order (as shown in fig. 7, the

user has to go through nested menu by pressing at lest three touch point in order for a

process to execute, [0070 – 0071]).

Ohba fails to disclose object displaying means for displaying an object that

connects the touch points sequentially subjected to the virtual touches.

In the same field of endeavor, Nakamura discloses an object displaying means

(operation device 80, col. 35, lines 32 – 43) for displaying an object that connects the

touch points sequentially subjected to the virtual touches (a large arrow which connects

points to be touched, col. 35, lines 32 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the device of Ohba to include features disclosed by

Nakamura, so as to provide an interactive experience to a user of the system.

As to **claim 10** (dependent on 9), Ohba discloses the information processing

system, wherein a virtual touch is made to any one of the touch points (menu points of

fig. 7), but fails to disclose that the object displaying means displays the object that

connects any one of the touch points to another touch point previously subjected to the

virtual touch.

In the same field of endeavor, Nakamura discloses that the object displaying

means (operation device 80) displays the object that connects any one of the touch

points to another touch point subjected to the virtual touch (a large arrow which

connects points, col. 35, lines 32 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Ohba to include features disclosed by Nakamura, so as to provide an interactive experience to a user of the system.

Ohba in view of Nakamura fails to disclose another point is previously subjected to a virtual touch; however, it would have been an obvious design choice alternative to connect the touch points in any order and would require an artisan only a routine skill in the art.

As to **claim 11** (dependent on 9), Ohba discloses the information processing system, wherein the virtual touches are made to a predetermined number of touch points in a predetermined order [0070 – 0071], but fails to disclose the object displaying means displays the object that connects the touch points sequentially subjected to the virtual touches.

In the same field of endeavor, Nakamura discloses an object displaying means (operation device 80, col. 35, lines 32 – 43) for displaying an object that connects the touch points sequentially subjected to the virtual touches (a large arrow which connects points to be touched, col. 35, lines 32 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Ohba to include features disclosed by Nakamura, so as to provide an interactive experience to a user of the system.

As to **claim 12** (dependent on 9), Ohba discloses the information processing

system, but fails to disclose that the object that connects the touch points comprises a

line imitating light.

In the same field of endeavor, Nakamura discloses that the object that connects

the touch points comprises a line imitating light (an arrow on display inherently emits

light, col. 35, lines 30 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the device of Ohba to include features disclosed by

Nakamura, so as to provide an interactive experience to a user of the system.

As to **claim 13**, Ohba discloses a recording medium (28 of fig. 2) on which a

computer program for accepting an input is recorded, the computer program causing a

computer to function as: means for producing a computer image that shows a player a

plurality of touch points to be virtually touched (image processor 2 of fig. 2); means for

accepting input of a video image of the player (image input device 101 of fig. 3) picked

up by image pickup means (camera 1 of fig. 1); display control means for

superimposing the video image and the computer image on one another and causing a

display device to display a superimposed image (superimposing image generator 106 of

fig. 3); means for analyzing the video image during display of the computer image and

detecting virtual touches to any of the plurality of touch points (difference value detector

107 of fig. 3); and the detecting means detects the virtual touches that are made

sequentially to a predetermined number of touch points in a predetermined order (as

shown in fig. 7, the user has to go through nested menu by pressing at lest three touch

point in order for a process to execute, [0070 – 0071]).

Ohba fails to disclose object displaying means for displaying an object that

connects the touch points sequentially subjected to the virtual touches.

In the same field of endeavor, Nakamura discloses an object displaying means

(operation device 80, col. 35, lines 32 – 43) for displaying an object that connects the

touch points sequentially subjected to the virtual touches (a large arrow which connects

points to be touched, col. 35, lines 32 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to modify the computer program of Ohba to cause the computer to

function according to features disclosed by Nakamura, so as to provide an interactive

experience to a user of the system.

As to **claim 14**, Ohba discloses an input interface controlling method for an

information processor having a computer image producing part, an image input part, a

superimposed image producing part, and a determining part, the method comprising the

steps of: producing, by the computer image producing part, a computer image that

shows a player a plurality of touch points to be virtually touched (nested menu of fig. 7);

accepting, by the image input part (image input device 101 of fig. 3), an input of a video

image of the player picked up by image pickup means (camera 1 of fig. 1);

superimposing, by the superimposed image producing part (superimposing image

generator 107 of fig. 3), the video image and the computer image on one another and

causing a display device to display a superimposed image (using display controller 108 of fig. 3): analyzing, by the determining part, the video image during display of the computer image (using difference value detector 107 of fig. 3) and detecting virtual touches to any of the plurality of touch points [0070 – 0071].

Ohba fails to disclose displaying, by the computer image producing part, when the virtual touches are detected to have been made sequentially on a plurality of touch points, an object that connects the touch points sequentially subjected to the virtual touches.

In the same field of endeavor, Nakamura discloses displaying, by the computer image producing part (operation device 80, col. 36, line 40), when the virtual touches are detected to have been made sequentially on a plurality of touch points, an object that connects the touch points sequentially subjected to the virtual touches (trace of indicated positions, col. 36, lines 30 – 40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Ohba to include features disclosed by Nakamura, so as to provide an interactive experience to a user of the system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitriy Bolotin whose telephone number is (571)270-

5873. The examiner can normally be reached on Monday-Friday, 8:00 AM - 5:00 PM

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Amare Mengistu can be reached on (571)272-7674. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. B./
Examiner, Art Unit 2629

/Amare Mengistu/
Supervisory Patent Examiner, Art Unit 2629